

Workshop to Discuss Guidelines for Adaptive Speech/Audio/GUI Multi-Modal Interfaces for Wearable Technology.

Abstract

This workshop will allow interested parties to discuss and create guidelines for speech/audio/GUI multi-modal wearable interfaces. The discussion will be focused on determining when speech and audio interfaces are necessary and most useful in a wearable context, how speech- and audio-based interfaces differ from but compliment graphical user interfaces, guidelines for combining speech, audio, and GUI interface elements on a wearable platform, and methods of incorporating context awareness to realize multi-modal adaptive interfaces. The objective will be to develop some general guidelines that will be published to guide system developers and to outline the future research agenda for this field. The potential audience includes both wearable users and researchers interested in multi-modal user interfaces for wearable technology. If the number of participants is large, it is anticipated that the group will divide into small discussion groups and then get together and try to draw some consensus for the entire group.

Outline of Workshop

- Introduction
- Discussion of possible interfaces and their strengths and weaknesses for wearable technology
- Discussion of possible combinations of different interfaces for wearable technology
- Discussion of possible interface standards and future research directions to define standards

Qualifications

Mr. Chris Thompson

Mr. Thompson has been involved in industrial automation R&D projects for over 15 years. His work includes bringing state-of-the-art technology to bear on difficult and risky problems such as automated inspection of food products, robotic systems for handling soft irregularly shaped objects, and for the past 5 years has focused on applications of wearable information technology in mobile environments. As director of the MiME (Multimedia Information for Mobile Environments) group he currently manages a team of researchers exploring methods of optimizing information presentation for mobile computers. His team has pioneered the use of wearable computers for data collection and performance support in industrial facilities.

Mr. Tom McKlin

Mr. McKlin is a Research Scientist at the Georgia Tech Research Institute researching user-interface design and development for mobile computing environments. He has focused on the design of data entry interfaces allowing mobile factory technicians to efficiently gather data while on the factory floor. This work involves the study of audio, keyboard, and pointing-type input devices; mobile display devices; wireless networking, and the software necessary to optimize these tools.

Dr. Jennifer Ockerman

Dr. Ockerman is a Research Engineer at the Georgia Institute of Technology where she works part time for the School of Industrial Engineering and part time for the Georgia Tech Research Institute. She has been working in the wearable computer field for the past 5 years, concentrating on data collection and inspection procedures. Her focus is on the design of usable user interfaces for wearable computers with an emphasis on understanding the needs of the intended user through observation, field studies, and experiments.

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